

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A heat sink member comprising:

a first layer (~~1, 11~~) mainly composed of Cu;

a second layer (~~2, 2a~~) mainly composed of Mo, and

a first brazing layer (~~4, 4a, 14~~) consisting of an Sn-Cu alloy arranged between said first layer and one surface of said second layer for bonding said first layer and said second layer to each other;

the content of Sn in said first brazing layer is at least 1 mass % and not more than 13 mass % and

the content of Cu is the highest of said first brazing layer, and the content of Sn is the second highest of said first brazing layer.

Claims 2 and 3: (Cancelled).

4. (Previously presented): The heat sink member according to claim 1, wherein said second layer mainly composed of Mo is formed by sintering.

5. (Previously presented): The heat sink member according to claim 1, wherein said first layer and said second layer have thicknesses of at least 0.1 mm and not more than 3.0 mm.

6. (Currently amended): The heat sink member according to claim 1, further comprising:
a third layer (~~3, 3a, 13~~) mainly composed of Cu, and
a second brazing layer (~~5, 5a, 15~~) consisting of an Sn-Cu alloy arranged between the other surface of said second layer and said third layer for bonding said second layer and said third layer to each other, wherein

a semiconductor element (6) is arranged on the surface of said third layer.

7. (Original): The heat sink member according to claim 6, wherein
the content of Sn in said second brazing layer is at least 1 mass % and not more than 13 mass %.

8. (Previously presented): The heat sink member according to claim 6, wherein
said second layer is arranged on a region of the surface of said first layer corresponding to a region where said semiconductor element is arranged.

9. (Previously presented): The heat sink member according to claim 6, wherein
said third layer has a thickness of at least 0.1 mm and not more than 3.0 mm.

10. (Currently amended): A method of manufacturing a heat sink member, comprising steps of:

arranging a first brazing layer (~~4, 4a, 14~~) consisting of an Sn-Cu alloy between a first layer (~~1, 11~~) mainly composed of Cu and one surface of a second layer (~~2, 2a~~) mainly composed of Mo; and

bonding said first layer and said second layer to each other by melting said first brazing layer;

the content of Sn in said first brazing layer is at least 1 mass % and not more than 13 mass % and

the content of Cu is the highest in said first brazing layer, and the content of Sn is the second highest in said first brazing layer.

11. (Original): The method of manufacturing a heat sink member according to claim 10, wherein

the content of Sn in said first brazing layer is at least 1 mass %.

12. (Previously presented): The method of manufacturing a heat sink member according to claim 1, wherein

the content of Sn in said first brazing layer is not more than 13 mass %.

13. (Previously presented): The method of manufacturing a heat sink member according to claim 10, further comprising a step of forming said second layer mainly composed of Mo by sintering.

14. (Previously presented): The method of manufacturing a heat sink member according to claim 10, wherein

said first layer and said second layer have thicknesses of at least 0.1 mm and not more than 3.0 mm.

15. (Currently amended): The method of manufacturing a heat sink member according to claim 10, further comprising a step of previously bonding said first layer (11) and said first brazing layer (14) to each other in advance of the step of arranging said first brazing layer between said first layer and said second layer.

16. (Currently amended): The method of manufacturing a heat sink member according to claim 10, wherein

the step of arranging said first brazing layer between said first layer and said second layer includes a step of arranging the first brazing layer between said first layer and one surface of said second layer and arranging a second brazing layer (5, 5a, 15) consisting of an Sn-Cu alloy between the other surface of said second layer and a third layer (3, 3a, 13) mainly composed of Cu, and

the step of bonding said first layer and said second layer to each other includes a step of bonding said first layer and said second layer to each other and bonding said second layer and said third layer to each other by melting said first brazing layer and said second brazing layer.

17. (Original): The method of manufacturing a heat sink member according to 16, wherein

the content of Sn in said second brazing layer is at least 1 mass % and not more than 13 mass %.

18. (Previously presented): The method of manufacturing a heat sink member according to claim 16, wherein

a semiconductor element (6) is arranged on the surface of said third layer,

the method further comprising a step of preparing said second layer arranged on a region of the surface of said first layer corresponding to a region where said semiconductor element is arranged in advance of the step of arranging said first brazing layer between said first layer and said second layer.

19. (Previously presented): The method of manufacturing a heat sink member according to claim 16, wherein

said third layer has a thickness of at least 0.1 mm and not more than 3.0 mm.